

### **REMARKS**

Claims 1-37 are pending. Claims 1-8 and 10-37 are rejected. Claims 22, 26, 29, 30 and 33 have been amended. The Examiner's reconsideration of the rejections is respectfully requested in view of the above amendments and the following remarks.

### **Reopening of Prosecution/Reinstatement of Appeal**

Applicants would note for the record that this Office Action was issued to reopen prosecution in response to Applicants' persuasive arguments set forth in the previously filed Appeal Brief. Applicants retain their right to reinstate the Appeal in this Action in the event that the Examiner issues a Final Office Action.

### **Claim Rejections**

The following claim rejections are asserted in the Office Action:

- A. Claims 1-8, 10-20, 22, 23, 25-28, 30-34 and 37 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,678,790 to Kumar.
- B. Claims 1, 10-14 and 21 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,321,318 to Baltz.
- C. Claim 29 is rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,606,684 to Ramagopal.
- D. Claim 24 stands rejected as being unpatentable over Kumar in view of U.S. Patent 6,377,912 to Sample, or in the alternative in view of U.S. Patent 6,611,796 to Natarajan.
- E. Claims 34 and 35 stand rejected as being unpatentable over Kumar in view of U.S. Patent 6,426,549 to Isaak.

A. **The Teachings of Kumar Do Not Support the Anticipation Rejections**

At the very least, Kumar fails to anticipate Claims 1, 22, 26, 30 and 33.

**Kumar Does Not Anticipate Claim 1**

Kumar does not disclose, for example, a configurable memory having *a memory array in which both tag bits and data bits are stored in a single data line in the memory array in a first mode of operation where the configurable memory is configured as a cache*, as claimed in claim

1. The rejection of claim 1 is based, in part, on the Examiner's erroneous finding that Kumar discloses a configurable memory having "a memory array in which both tag bits (figure 2, 50) and data bits are stored in a single data line (col. 3, lines 32-33) in the memory array (figure 1, 12), in the second mode of operation." The Examiner's finding squarely contradicts Kumar's clear teaching of a reconfigurable memory (12) having separate memory arrays – a tag array (50) and a cache data array (52), for cache operation (as depicted in FIG. 2). Indeed, Kumar clearly discloses that the data array (52) stores a data line and the tag array (50) stores sets of tags (Col. 3, lines 27-35). In other words, Kumar teaches that tag bits are not stored with data bits in a data line of a memory array configured as a cache (as in claim 1), but rather that data bits and tag bits are stored and accessed from different arrays. Accordingly, in view of the above, the Examiner has not sufficiently demonstrated how Kumar discloses, for example, a configurable memory having *a memory array in which both tag bits and data bits are stored in a single data line in the memory array in a first mode of operation where the configurable memory is configured as a cache*, as claimed in claim 1. Therefore, at the very least, the Final Action fails to present a *prima facie* case of anticipation of claim 1 in view of Kumar.

(ii) **Kumar Does Not Anticipate Claims 22, 26, 30 and 33**

Claims 22, 26, 30 and 33 commonly recite the claim feature of *wherein either the first mode of operation or the second mode of operation is selectable during a program execution based on comparing a supplied address to at least one address range contained in at least one configuration register*. In the interest of cooperation, Applicants have amended claims 22, 26, 30 and 33 to replace the objectionable claim language “can be selected” with *is selectable*. However, Applicants note for the record their strong disagreement with the Examiner’s characterization of the claims as reciting only a capability, and failure to consider and place patentable weight on the claim terms, for at least all previously explained reasons. Indeed, the **MPEP Section 2173.05(h)** indicates that claim language such as “capable of” or “may be” are valid terminologies that can be used in proper context to define a particular capability or purpose that is served by a recited element or step.

Moreover, there is no support for the Examiner’s assertion (on page 3 of the Office Action) that Kumar teaches a memory system that is capable of supporting a mode selection based on an address comparison. Once more, other than a bald assertion, the Examiner utterly fails to point to any specific teaching in Kumar to support such finding. The reason is simple - Kumar does not disclose or suggest any such mode selection feature (see, e.g., Kumar, Col. 2, lines 47-60, where the disclosed mode selection options do not disclose or suggest the claimed mode selection features).

Accordingly, claims 1, 22, 26, 30 and 33 are patentable over Kumar. Further, claims 2-8, 10-20, 23, 25, 27-28, 31, 32, 34 and 37 are patentable over Kumar for at least the same reasons given for respective base claims 1, 22, 26, 30 and 33.

**B     The Teachings of Baltz Do Not Support the Anticipation Rejections**

Baltz is legally deficient to establish a *prima facie* case of anticipation against claims 1, 10-14 and 21. At the very least, Baltz does not disclose a configurable memory that comprises a memory array in which both tag bits and data bits are stored in a single data line in the memory array in a first mode of operation where the configurable memory is configured as a cache, as claimed in claim 1.

Once again, the Examiner erroneously contends that Baltz discloses in FIG. 9, elements 30, 31 and 32 illustrate a memory array for storing tag bits and data bits in a single data line in the memory array. However, similar to those arguments presented above with regard to claim 1 in view of Kumar, Baltz teaches separate tag memories (33, 32) (FIG. 9) of a memory controller (30) that are distinct from the memory data array (31) (see FIG. 1). Accordingly, for at least the above reasons, claim 1 is patentably distinct from Baltz. Claims 10-14 and 21 are patentable over Baltz at least by virtue of their dependence from claim 1.

It should be noted that claims 10-14 are further patentable over Baltz and Kumar for similar reasons discussed above. The Examiner's rejection of claims 10-14 is not based on cited art, but rather the Examiner's failure to consider and simply dismiss the claim language as being a capability. The Examiner's rejection of claims 10-14 constitutes reversible error.

**C.     Claim 29 is not Anticipated by Ramagopal**

Ramagopal fails to anticipate claim 29, as Ramagopal does not teach or suggest *wherein any one of the three modes of operation is selectable at any given time during a program execution based on comparing a supplied address to at least one address range contained in at least one configuration register*, as recited in claim 29. Again, in the interests of cooperation,

claim 29 has been amended to replace the objectionable claim language "can be selected" with *is selectable*. Withdrawal of the rejection is thus requested.

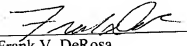
**D. Claim 24 is patentable Kumar in view of Sample or Natarajan.**

Rather than provide a detailed explanation as to the impropriety of such rejections, it is suffice to say that the obviousness rejection of claim 24 is invalid at least for the same reasons given above for claim 22. Indeed, because claim 24 incorporates the elements of claim 22 by virtue of dependency, and since the rejection of claim 22 is primarily based on an improper finding of Kumar anticipating claim 22, the Final Action fails at the very least to demonstrate how the combined teachings of Kumar and Sample or Natarajan meet the elements of claim 24.

**E. Claims 34 and 35 are patentable over Kumar and Isaak**

The Examiner has not presented a prima facie case of obviousness against claims 34 and 35 based on the combination of Kumar and Isaak. Again, rather than provide a detailed explanation as to the impropriety of such rejections, it is suffice to say that the obviousness rejections are invalid at least for the same reasons given above for claim 33. Indeed, because claims 34 and 35 incorporate the elements of claim 33 by virtue of dependency, and since the rejection of claim 33 is primarily based on an improper finding of Kumar anticipating claim 33, the Examiner has failed at the very least to demonstrate how the combined teachings of Kumar and Isaak meet the elements of claims 34 and 35.

Accordingly, withdrawal of all anticipation and obviousness rejections is requested.

  
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